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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/806,232

03/23/2004

Bernd Bartenbach

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04/02/2008

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EXAMINER

BOYER, RANDY

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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| <p align="center"><b>Advisory Action</b><br/><b>Before the Filing of an Appeal Brief</b></p> | <p><b>Application No.</b><br/>10/806,232</p> | <p><b>Applicant(s)</b><br/>BARTENBACH ET AL.</p> |  |
|  | <p><b>Examiner</b><br/>RANDY BOYER</p>       | <p><b>Art Unit</b><br/>1797</p>                  |  |

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 04 March 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: none.
- Claim(s) objected to: none.
- Claim(s) rejected: 1-18 and 20-24.
- Claim(s) withdrawn from consideration: none.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_
13. ☒ Other: See Attached.

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797

Continuation of 11. does NOT place the application in condition for allowance because:

Applicant's amendments and arguments are unpersuasive and insufficient to overcome the rejections in the Office Action mailed 28 December 2007. Consequently, the claims would be rejected as follows:

- (a) Claims 1-13 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Gravley (US 4,765,964);
- (b) Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gravley (US 4,765,964). Alternatively, claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gravley (US 4,765,964) in view of Kuehner (US 5,188,806);
- (c) Claims 14-18 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gravley (US 4,765,964) in view of Bakker (US 3,640,739); and
- (d) Claims 3, 13-19, and 24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of Bartenbach (US 6,869,279).

1. Applicant argues that Gravley discloses a "throat" having a mere cylindrical geometry and not in the form of an "annular gap."

In response to Applicant's argument, Examiner notes that Gravley makes eleven separate references to various of his reactor components having an annular shape or geometry (see Gravley, column 1, lines 60-61; column 2, lines 1-2; column 3, lines 9-10, 31, 42, and 52-53; column 5, lines 7 and 64; column 6, lines 34-36; column 10, lines 52-54; and column 29, lines 21-23).

Applicant's claim 1 recites, in relevant part, "the transition from the reaction chamber to the quench area being designed in the form of an annular gap." In this regard, Examiner notes that Gravley discloses wherein "the upstream end of the pyrolysis [i.e. "reaction"] zone is defined by a generally annularly shaped end wall 46 which extends from the downstream end of the throat 34 to the upstream end of pyrolysis zone sidewall 48 [and upstream of quench means 56]" (see Gravley, column 5, lines 63-66; and drawing). Thus, Examiner submits that Gravley clearly meets Applicant's limitation wherein "the transition from the reaction chamber to the quench area being designed in the form of an annular gap." Moreover, an additional annular gap can be seen in the drawing of Gravley being formed by the converging chamber 32 with feedstock injector assembly 42 protruding therethrough, and thereby creating a transition area in the form of an "annular gap."

2. Applicant argues that Gravley discloses supplying a reaction mixture to a reaction chamber via a single passage or channel and not a plurality of channels.

In response to Applicant's argument, Examiner notes that the reaction mixture of Gravley [i.e. oxidant fluid and combustible fluid] are introduced into the chamber 10 via passage 16 which leads from upstream passage 18 and wherein the combustible fluid is delivered through a plurality of radially outwardly directed ports or orifices 30 passing through the sidewall of tubular member 23 (see Gravley, column 3, lines 15-58; and drawing). Thus, Examiner submits that Gravley discloses "supply of a reaction mixture via channels of a burner block."

3. Applicant argues that Gravley does not provide any hint that the specific reactor geometry required by Applicant's process/apparatus would be specifically suited for scale-up without losses in yield.

In response to Applicant's argument, such argument is directed to feature(s) not recited in any of Applicant's claims. Thus, such argument is irrelevant to the claims and rejections at issue.

4. Applicant argues that neither Kuehner nor Bakker provide an apparent reason to modify Gravley so that the reactor of Gravley (1) provides a supply of a reaction mixture via channels of a burner block to a reaction chamber and (2) includes a transition from the reaction chamber to the quench area in the form of an annular gap.

In response to Applicant's argument, Examiner does not rely on Kuehner or Bakker for such teachings. Rather, it is Examiner's position that Gravley reasonably discloses such features of Applicant's process/apparatus.

5. With respect to the nonstatutory obviousness-type double patenting rejection, Applicant argues that Bartenbach (US 6,869,279) does not disclose an "annular gap."

In response to Applicant's argument, Examiner submits that "the transition of the reaction chamber to the quench area designed in the form of an annular gap" is inherent within the disclosure of Bartenbach ('279) since there must necessarily be some separation of space (i.e. an "annular gap") between the reaction zone (4) and quench zone (5) of Bartenbach ('279) (see Bartenbach ('279), Fig. 2). Examiner notes that a gap in the form of an annulus would necessarily be formed between the boundary of the reaction chamber (4) and the center portion (not labelled) (see Bartenbach, Fig. 2) extending outwardly therefrom and into the quench zone (5).

/Glenn Caldarola/

